

Mathematics Research group

Today Fluid Mechanics plays an important role in design and development of pertinent equipment and its life time.

Objectives:

The objective is to provide research group members with the ability to design and development of pertinent equipment and its life time. Especially in the situation of heat transfer, the design and development of drag force on turbine blades and high pressure boilers play an important role.

Fluid Mechanics Group members

S.No	Name	Role in research group
1	Dr. K. Jhansi Rani	Coordinator
2	Dr. K. R. Kavitha	Member
3	Y. P. C. S. Anil Kumar	Member
4	D. Vijay Kumar	Member

Major Equipment:

S.No.	Name of the Equipment	Qty	Equipment cost(Rs.)
1	HP Commercial Laptop	2	65,580/-
2	HP PRO 3330 Desktop Computers	2	61,980/-
3	Canon printers	2	30,000/-

Project details:

Name of Principal investigator	Duration of project	Name of the research project	Amount/Fund received	Name of Funding agency	Year of sanction
Dr. K. Jhansi Rani	2011-2016	Convective MHD flow and mass transfer past porous Boundaries	14,16,000/-	DST Under Young Women Scientist Scheme	2011

Research Publications:

2020-21:

S.No.	Name(s) of the Authors	Title of the Paper	Name of the Journal & Details	Indexing
1	Ch.V. Ramana Murthy, Y.P.C.S. Anil Kumar	Heat and Mass Transfer Effects on Semi Infinite Moving Surface Studded in a Stratified Porous Medium	Solid state technology, 63, 4, Oct. 2021, 2852-2862, 0038-111X.	Scopus
2	Ch.V. Ramana Murthy, Vijay Kumar.D	The Case Of Exponentially Decreasing Suction With Mhd Effects In Flow Through A Porous Channel	International Journal of Advanced Research in Engineering and Technology (IJARET), 11, 10, Oct.2021, 171-179,0976-6499	Scopus
3	K.R. Kavitha , Ch V Ramana Murthy, N. Swami Kallepalli	Flow Past a Vertical Porous Surface under Fluctuating Thermal and Mass Diffusion with MHD Effects	Journal of Mathematical and Computational Science(JMCS),10, 220, November 2020, 2955-2970, 1927-5307	Open Access
4	K.R. Kavitha , Dr.Ch V Ramana Murthy,	Contribution of Porosity and Time over a Moving Porous Vertical Surface with Uniform Heat Flux.	Solid State Technology, 63, 5, September 2020, 371-384,0038-111X	Scopus
5	Ch V Ramana Murthy, K. Jhansi Rani , N Swamy Kallepalli	Film Thickness within a Fixed Vertical Circular Cylinder	Design Engineering, 2021, 6, June-2021,1773-1781,0011-9342	Scopus
6	K. Gangadhar , K. Bhanu Lakshmi , T. Kannan , and Ali J. Chamkha	Entropy Generation in Magnetized Bioconvective Nanofluid Flow Along a Vertical Cylinder with Gyrotactic Microorganisms	Journal of Nano-fluids, 9,4, June-2021, 302-312, 2169-432X.	Scopus
7	Radha Rani Tammileti , Gangadhara Rao Ankata, Marisetti Sowjanya, Chebiyyam Srimannarayana	F-Semi primeideal In Semi Groups	Journal of Advanced Research in Dynamical and Control Systems (JARDCS), 12, 2, September-20, 1056-1062, 1943-023X.	Scopus
8	Marisetti Sowjanya, Gangadhara Rao, Radha Rani Tammileti	Results on Generalized Regular and Strongly Regular Near-Rings	Turkish Journal of Computer and Mathematics Education, 12, 5, April-	Scopus

			2021, 846-851, 1309-4653.	
9	Radha Rani Tammileti, Mariseti Sowjanya, Gangadhara Rao	f-Primary ideals in Semi Groups	Turkish Journal of Computer and Mathematics Education, 12, 5, April-2021, 857-861, 1309-4653.	Scopus

2019-20:

S.No.	Name(s) of the Authors	Title of the Paper	Name of the Journal & Details	Indexing
1	Ch.V. Ramana Murthy, K R Kavitha , K Jhansi Rani	A Mathematical Model for Increasing Incidence of Tuberculosis in Poverty Driven Confined Areas and Measures for Control	International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-9 Issue-1, October 2019, 2249-8958	Scopus
2	K. Rosaiah, B. Srinivasa Rao and M. Rami Reddy	Variable Control Charts based on Percentiles of Exponentiated Inverse Kumaraswamy Distribution	Journal of Information and Computational Science, Volume 9 Issue 10 – 2019, ISSN: 1548-7741	Open Access
3	Ch. V. Ramana Murthy, K.Jhansi Rani, K R Kavitha	MHD Flow past an infinite inclined moving plate with radiation effects	Journal of Advanced Research in dynamical and control systems(JARDC), Vol 12, issue 3, March 2020, pp. 560 -571, 1943 – 023X	Scopus
4	Ch. V. Ramana Murthy, K.Jhansi Rani, K R Kavitha	A Conceptual Model For the Outbreak Of Corona Virus And Subsequent Effects	International Journal of Advanced Science and Technology (IJAST), Vol. 29, No.08, (2020), May 2020, pp.2535 – 2542, 2005 – 4238	Scopus
5	Y.P.C.S. Anil Kumar, D. Vijay Kumar , Ch. V. Ramana Murthy	Convective MHD Flow Past An Accelerated Infinite Vertical Porous Plate	Journal of Advanced Research in Dynamical & Control Systems, Volume -12, Issue: 06, 2020, pp 39-46, 1943-023X.	Scopus

2018-19:

S.No.	Name(s) of the Authors	Title of the Paper	Name of the Journal & Details	Indexing
1	D. Vijay Kumar, Ch.V. Ramana Murthy	The Influence of Critical Parameters on the Flow Rate on a Moving Infinite Vertical Plate under the Effect of Thermal Radiation	JASC: Journal of Applied Science and Computations, Volume VI, Issue I, January/2019, Page No:1259-1265, ISSN NO: 1076-5131	Open Access
2	Y. P. C. S. ANIL KUMAR, CH. V. Ramana Murthy	Effect of Critical Parameters on the Flow Rate for the Case of MHD Flow over an Accelerated Vertical Porous Plate	JASC: Journal of Applied Science and Computations, Volume VI, Issue I, January/2019, Page No:1250-1258, ISSN NO: 1076-5131	Open Access
3	Y. P. C. S. ANIL KUMAR, CH. V. Ramana Murthy	Critical Parameters on MHD Flow Over an Accelerated Vertical Porous Plate	IJR: International Journal of Research, Volume 7, Issue XI, November/2018, Page No:1339-1348, ISSN NO: 2236-6124	Open Access

2017-18:

S.No.	Name(s) of the Authors	Title of the Paper	Name of the Journal & Details	Indexing
1.	K. Jhansi Rani, Ch.V. Ramana Murthy, J. V. Ramana Murthy	Variation of flow rate in case of MHD flow over a moving infinite vertical Porous plate in the presence of Thermal Radiation and Uniform Heat Flux	International Journal of Mathematical Archive, 8(3), Dec,2017, PP:13-21, 2229-5046.	Open access

2016-17:

S.No.	Name(s) of the Authors	Title of the Paper	Name of the Journal & Details	Indexing
1.	K. Jhansi Rani, Ch.V. Ramana Murthy, J. V. Ramana Murthy	Variation of flow rate in case of MHD flow over a moving infinite vertical Porous plate in the presence of Thermal Radiation and Uniform Heat Flux	International Journal of Mathematical Archive, 8(3), Dec,2017, PP:13-21, 2229-5046.	Open access

2015-16:

S.No.	Name(s) of the Authors	Title of the Paper	Name of the Journal & Details	Indexing
1	K. Jhansi Rani , Ch.V. Ramana Murthy, J. V. Ramana Murthy	Variation of flow rate in case of MHD flow over a moving infinite vertical Porous plate in the presence of Thermal Radiation and Uniform Heat Flux	International Journal of Mathematical Archive, 8(3),Dec,2017, PP:13-21, 2229-5046	Open Access